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Addendum

PROJECT:

Sioux Falls VA Health Care System
Primary Care
Sioux Falls, South Dakota

ADDENDUM NO. 01

DATE ISSUED: June 10, 2014

BIDS DUE: June 17, 2014

VA PROJECT NUMBER: VA263-p-1038
TSP PROJECT NUMBER: 04121121

PROPOSAL NOTICE:

The following changes or modifications are to be incorporated into and become a part of the Contract Documents. The Bidder shall note receipt and make acknowledgement of this Addendum on the Bid Proposal, incorporating these provisions in the bid.

GENERAL:

ITEM NO. 1: N/A

PRODUCT APPROVALS:

The following manufacturers and products have been approved for bidding. Final acceptance is contingent upon receipt and approval of final shop drawings/submittals. Manufacturers shall conform to all warranties, performances, sizes, materials, etc. as the item specified. The burden of proof of the merit of the proposed substitution is upon the proposer.

Section	Product	Supplier
047200	Cast Stone Masonry	Marcstone

PROJECT MANUAL:

ITEM NO. 1: Reference Section 055000, Metal Fabrications:

Replace entire section with new section attached.

ITEM NO. 2: Reference Section 072726 Fluid-Applied Membrane Air Barriers, Vapor Permeable:

Add new specification section to the set.

ITEM NO. 3: Reference Section 092216, Non Structural Metal Framing:

Eliminate section 1.2.A – Load bearing framing: Section 054000, COLD-FORMED METAL FRAMING

ITEM NO. 4: Reference Section 092216, Non Structural Metal Framing:

Add the following to section 2.2.A:

2.2.A.3: Flange Sizes at studs to be: 1-5/8”.

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ITEM NO. 5: Reference Section 089000, Louvers and Vents:

Add new specification section to the set.

DRAWINGS:

The following drawings require changes in construction, which are not reflected on same. The Bidder agrees to comply with these changes and mark each drawing as noted:

ITEM NO. 1. Reference Sheet S.SF103, Roof Framing Plan:

Add Keynote 14 callout to plan at bumpout along east face of exterior wall between grids 1 and 10. Deck Brg Elevation = 1537'-5"

ITEM NO. 2. Reference Sheet S.SF103, Roof Framing Plan:

Add Keynote 14 callout to plan at bumpout along exterior corner wall of Stair 8 (2000A) in both north and east directions. Deck Brg Elev = 1537'-5"

ITEM NO. 3. Reference Sheet 5.SF103, Roof Framing Plan:

Update Keynote 34 to call out T.O. Channel Elev = 1536'-11 ¾"

ITEM NO. 4. Reference Sheet 5.SF103, Roof Framing Plan:

Update Keynote 37 to call out T.O. Channel Elev = 1536'-11 ¾"

ITEM NO. 5. Reference Sheet 5.SF103, Roof Framing Plan:

Along Gridline JE at bumpout location, provide L2x2x3/16" @ each joist location. Angle will be connected to bottom of web of steel beam (similar as shown on detail 9B/5.SF502) with 1/8" fillet weld all around. Extend L2x2 brace back to first interior top chord panel point of each joist perpendicular to gridline JE. Fasten angle to joist with 1/8" fillet weld all around.

ITEM NO. 6. Reference Sheet 5.AE113, Second Level Reflected Ceiling Plan:

At room 2000A (Stair 8), adjust ceiling height from 10'-5" to 10'-9".

ITEM NO. 7. Reference Sheet 5.AE201, Exterior Elevations:

Reference attachment 5.AE201-Rev for information.

ITEM NO. 8. Reference Sheet 5.AE311, Wall Sections:

Reference attachment 5.AE311-Rev for information regarding changes to 1F and 3F. Modification also applies to detail 3F on 5.AE312.

ITEM NO. 9. Reference Sheet 5.AE501, General Details:

Reference attachment ADD01-A1 for E3B wall type information.

ITEM NO. 10. Reference Sheet 5.AE501, General Details:

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Change the following under roof type R1:

Current note: "Steel beam or Joist" to read as follows:

"Steel beam or joist (Ref. Structural) – 1hr Spray Fireproofing".

ITEM NO. 11. Reference Sheet 5.AE511, Exterior and Roof Details:

Reference attachment ADD01-A2 for adjustments to detail 2B.

ITEM NO. 12. Reference Sheet 5.AE521, Interior, RCP and Casework Details:

At detail 1A, adjust dimension from 11" to 1'-3".

ITEM NO. 13. Reference Sheet 5.AE601, Door Schedule, Door and Window Types:

Adjust window type W3 and W1 as indicated in reissued 5.AE601-rev.

ATTACHMENTS:

- Specification Section 05 50 00
- Specification Section 07 27 26
- Specification Section 08 90 00
- 5.AE201-Rev.
- 5.AE311-Rev.
- 5.AE601-Rev.
- ADD01-A1
- ADD01-A2

END OF ADDENDUM

SECTION 05 50 00
METAL FABRICATIONS

PART 1 - GENERAL

1.1 DESCRIPTION

A. This section specifies items and assemblies fabricated from structural steel shapes and other materials as shown and specified.

B. Items specified.

1. Support for Wall and Ceiling Mounted Items:
2. Loose Lintels
3. Shelf Angles
4. Miscellaneous Plates

1.2 RELATED WORK

A. Prime and finish painting: Section 09 91 00, PAINTING.

1.3 SUBMITTALS

A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

B. Shop Drawings:

1. Each item specified, showing complete detail, location in the project, material and size of components, method of joining various components and assemblies, finish, and location, size and type of anchors.
2. Mark items requiring field assembly for erection identification and furnish erection drawings and instructions.
3. Provide templates and rough-in measurements as required.

C. Manufacturer's Certificates:

1. Live load designs as specified.

D. Design Calculations for specified live loads including dead loads.

E. Furnish setting drawings and instructions for installation of anchors to be preset into concrete and masonry work, and for the positioning of items having anchors to be built into concrete or masonry construction.

1.4 QUALITY ASSURANCE

A. Each manufactured product shall meet, as a minimum, the requirements specified, and shall be a standard commercial product of a manufacturer regularly presently manufacturing items of type specified.

B. Each product type shall be the same and be made by the same manufacturer.

C. Assembled product to the greatest extent possible before delivery to the site.

D. Include additional features, which are not specifically prohibited by this specification, but which are a part of the manufacturer's standard commercial product.

1.5 APPLICABLE PUBLICATIONS

A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.

B. American Society of Mechanical Engineers (ASME):

B18.6.1-97.....Wood Screws

B18.2.2-87(R2005).....Square and Hex Nuts

C. American Society for Testing and Materials (ASTM):

A36/A36M-08.....Structural Steel

A47-99(R2009).....Malleable Iron Castings

A53-10.....Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless

A123-09.....Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

A167-99(R2009).....Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip

A307-10.....Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength

A653/A653M-10.....Steel Sheet, Zinc Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process

B221-08.....Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes

C1107-08.....Packaged Dry, Hydraulic-Cement Grout (Nonshrink)

F436-10.....Hardened Steel Washers

F468-10.....Nonferrous Bolts, Hex Cap Screws, and Studs for General Use

F593-02(R2008).....Stainless Steel Bolts, Hex Cap Screws, and Studs

F1667-11.....Driven Fasteners: Nails, Spikes and Staples

D. American Welding Society (AWS):

D1.1-10.....Structural Welding Code Steel

D1.3-08.....Structural Welding Code Sheet Steel

E. National Association of Architectural Metal Manufacturers (NAAMM)

AMP 521-01.....Pipe Railing Manual

AMP 500-06.....Metal Finishes Manual

F. Structural Steel Painting Council (SSPC)/Society of Protective Coatings:
SP 1-04.....No. 1, Solvent Cleaning
SP 2-04.....No. 2, Hand Tool Cleaning
SP 3-04.....No. 3, Power Tool Cleaning

G. Federal Specifications (Fed. Spec):
RR-T-650E.....Treads, Metallic and Nonmetallic, Nonskid

PART 2 - PRODUCTS

2.1 DESIGN CRITERIA

A. In addition to the dead loads, design fabrications to support the following live loads unless otherwise specified.

B. Railings and Handrails: 900 N (200 pounds) in any direction at any point.

2.2 MATERIALS

A. Structural Steel: ASTM A36.

B. Stainless Steel: ASTM A167, Type 302 or 304.

C. Aluminum, Extruded: ASTM B221, Alloy 6063-T5 unless otherwise specified. For structural shapes use alloy 6061-T6 and alloy 6061-T4511.

D. Steel Pipe: ASTM A53.
1. Galvanized for exterior locations.
2. Type S, Grade A unless specified otherwise.
3. NPS (inside diameter) as shown.

E. Cast-Iron: ASTM A48, Class 30, commercial pattern.

F. Malleable Iron Castings: A47.

G. Primer Paint: As specified in Section 09 91 00, PAINTING.

H. Modular Channel Units:
1. Factory fabricated, channel shaped, cold formed sheet steel shapes, complete with fittings bolts and nuts required for assembly.
2. Form channel with in turned pyramid shaped clamping ridges on each side.
3. Provide case hardened steel nuts with serrated grooves in the top edges designed to be inserted in the channel at any point and be given a quarter turn so as to engage the channel clamping ridges. Provide each nut with a spring designed to hold the nut in place.

4. Factory finish channels and parts with oven baked primer when exposed to view. Channels fabricated of ASTM A525, G90 galvanized steel may have primer omitted in concealed locations. Finish screws and nuts with zinc coating.

5. Fabricate snap-in closure plates to fit and close exposed channel openings of not more than 0.3 mm (0.0125 inch) thick stainless steel.

I. Grout: ASTM C1107, pourable type.

2.3 HARDWARE

A. Rough Hardware:

1. Furnish rough hardware with a standard plating, applied after punching, forming and assembly of parts; galvanized, cadmium plated, or zinc-coated by electro-galvanizing process. Galvanized G-90 where specified.
2. Use G90 galvanized coating on ferrous metal for exterior work unless non-ferrous metal or stainless is used.

B. Fasteners:

1. Bolts with Nuts:
   a. ASME B18.2.2.
   b. ASTM A307 for 415 MPa (60,000 psi) tensile strength bolts.
   c. ASTM F468 for nonferrous bolts.
   d. ASTM F593 for stainless steel.
2. Screws: ASME B18.6.1.
3. Washers: ASTM F436, type to suit material and anchorage.
4. Nails: ASTM F1667, Type I, style 6 or 14 for finish work.

2.4 FABRICATION GENERAL

A. Material

1. Use material as specified. Use material of commercial quality and suitable for intended purpose for material that is not named or its standard of quality not specified.
2. Use material free of defects which could affect the appearance or service ability of the finished product.

B. Size:

1. Size and thickness of members as shown.
2. When size and thickness is not specified or shown for an individual part, use size and thickness not less than that used for the same component on similar standard commercial items or in accordance with established shop methods.

C. Connections

1. Except as otherwise specified, connections may be made by welding or bolting.

2. Design size, number and placement of fasteners, to develop a joint strength of not less than the design value.
3. Holes, for bolts: Accurately punched or drilled and burrs removed.
4. Size and shape welds to develop the full design strength of the parts connected by welds and to transmit imposed stresses without permanent deformation or failure when subject to service loadings.
5. Use bolts of material selected to prevent corrosion (electrolysis) at bimetallic contacts. Plated or coated material will not be approved.
6. Use stainless steel connectors for removable members machine screws or bolts.

D. Fasteners and Anchors
1. Use methods for fastening or anchoring metal fabrications to building construction as shown or specified.
2. Where fasteners and anchors are not shown, design the type, size, location and spacing to resist the loads imposed without deformation of the members or causing failure of the anchor or fastener, and suit the sequence of installation.
3. Use material and finish of the fasteners compatible with the kinds of materials which are fastened together and their location in the finished work.
4. Fasteners for securing metal fabrications to new construction only, may be by use of threaded or wedge type inserts or by anchors for welding to the metal fabrication for installation before the concrete is placed or as masonry is laid.
5. Fasteners for securing metal fabrication to existing construction or new construction may be expansion bolts, toggle bolts, power actuated drive pins, welding, self drilling and tapping screws or bolts.

E. Workmanship
1. General:
   a. Fabricate items to design shown.
   b. Furnish members in longest lengths commercially available within the limits shown and specified.
   c. Fabricate straight, true, free from warp and twist, and where applicable square and in same plane.
   d. Provide holes, sinkages and reinforcement shown and required for fasteners and anchorage items.
   e. Provide openings, cut-outs, and tapped holes for attachment and clearances required for work of other trades.
   f. Prepare members for the installation and fitting of hardware.

g. Fabricate surfaces and edges free from sharp edges, burrs and projections which may cause injury.

2. Welding:
   a. Weld in accordance with AWS.
   b. Welds shall show good fusion, be free from cracks and porosity and accomplish secure and rigid joints in proper alignment.
   c. Where exposed in the finished work, continuous weld for the full length of the members joined and have depressed areas filled and protruding welds finished smooth and flush with adjacent surfaces.
   d. Finish welded joints to match finish of adjacent surface.
3. Joining:
   a. Miter or butt members at corners.
   b. Where frames members are butted at corners, cut leg of frame member perpendicular to surface, as required for clearance.
4. Anchors:
   a. Where metal fabrications are shown to be preset in concrete, weld 32 x 3 mm (1-1/4 by 1/8 inch) steel strap anchors, 150 mm (6 inches) long with 25 mm (one inch) hooked end, to back of member at 600 mm (2 feet) on center, unless otherwise shown.
   b. Where metal fabrications are shown to be built into masonry use 32 x 3 mm (1-1/4 by 1/8 inch) steel strap anchors, 250 mm (10 inches) long with 50 mm (2 inch) hooked end, welded to back of member at 600 mm (2 feet) on center, unless otherwise shown.
5. Cutting and Fitting:
   a. Accurately cut, machine and fit joints, corners, copes, and miters.
   b. Fit removable members to be easily removed.
   c. Design and construct field connections in the most practical place for appearance and ease of installation.
   d. Fit pieces together as required.
   e. Fabricate connections for ease of assembly and disassembly without use of special tools.
   f. Joints firm when assembled.
   g. Conceal joining, fitting and welding on exposed work as far as practical.
   h. Do not show screws prominently on the exposed face.
   i. The fit of components and the alignment of holes shall eliminate the need to modify component or to use exceptional force in the

assembly of item and eliminate the need to use other than common tools.

F. Finish:
1. Finish exposed surfaces in accordance with NAAMM Metal Finishes Manual.
2. Steel and Iron: NAAMM AMP 504.
a. Zinc coated (Galvanized): ASTM A123, G90 unless noted otherwise.
b. Surfaces exposed in the finished work:
1) Finish smooth rough surfaces and remove projections.
2) Fill holes, dents and similar voids and depressions with epoxy type patching compound.
c. Shop Prime Painting:
1) Surfaces of Ferrous metal:
a) Items not specified to have other coatings.
b) Galvanized surfaces specified to have prime paint.
c) Remove all loose mill scale, rust, and paint, by hand or power tool cleaning as defined in SSPC-SP2 and SP3.
d) Clean of oil, grease, soil and other detrimental matter by use of solvents or cleaning compounds as defined in SSPC-SP1.
e) After cleaning and finishing apply one coat of primer as specified in Section 09 91 00, PAINTING.
2) Non ferrous metals: Comply with MAAMM-500 series.
3. Stainless Steel: NAAMM AMP-504 Finish No. 4.

G. Protection:
1. Spot prime all abraded and damaged areas of zinc coating which expose the bare metal, using zinc rich paint on hot-dip zinc coat items and zinc dust primer on all other zinc coated items.

2.5 SUPPORTS

A. General:
1. Fabricate ASTM A36 structural steel shapes as shown.
2. Use clip angles or make provisions for welding hangers and braces to overhead construction.
3. Field connections may be welded or bolted.

2.6 FRAMES

A. Elevator Entrance Wall Opening.
1. Fabricate of channel shapes, plates, and angles as shown.
2. Weld or bolt head to jamb as shown.

3. Weld clip angles to bottom of frame and top of jamb members extended to structure above for framed construction.
   a. Provide holes for anchors.
   b. Weld head to jamb members.

2.7 LOOSE LINTELS

A. Furnish lintels of sizes shown. Where size of lintels is not shown, provide the sizes specified.

B. Fabricate lintels with not less than 150 mm (6 inch) bearing at each end for nonbearing masonry walls, and 200 mm (8 inch) bearing at each end for bearing walls.

C. Provide one angle lintel for each 100 mm (4 inches) of masonry thickness as follows except as otherwise specified or shown.
   1. Openings 750 mm to 1800 mm (2-1/2 feet to 6 feet) - 100 x 90 x 8 mm (4 x 3-1/2 x 5/16 inch).
   2. Openings 1800 mm to 3000 mm (6 feet to 10 feet) - 150 x 90 x 9 mm (6 x 3-1/2 x 3/8 inch).

D. Provide bearing plates for lintels where shown.

E. Where shown or specified, punch upstanding legs of single lintels to suit size and spacing of anchor bolts.I. Elevator Entrance:
   1. Fabricate lintel from plate bent to channel shape, and provide a minimum of 100 mm (4 inch) bearing each end.
   2. Cut away the front leg of the channel at each end to allow for concealment behind elevator hoistway entrance frame.

2.8 SHELF ANGLES

A. Fabricate from steel angles of size shown.

B. Fabricate angles with horizontal slotted holes for 19 mm (3/4 inch) bolts spaced at not over 900 mm (3 feet) on centers and within 300 mm (12 inches) of ends.

2.9 LADDERS

A. Steel Ladders:
   1. Fixed-rail type with steel rungs shouldered and headed into and welded to rails.
   2. Fabricate angle brackets of 50 mm (2 inch) wide by 13 mm (1/2 inch) thick steel; brackets spaced maximum of 1200 mm (4 feet) apart and of length to hold ladder 175 mm (7 inches) from wall to center of rungs. Provide turned ends or clips for anchoring.

3. Provide holes for anchoring with expansion bolts through turned ends and brackets.
4. Where shown, fabricate side rails curved, twisted and formed into a gooseneck.
5. Galvanize exterior ladders after fabrication, ASTM A123, G-90.

B. Ladder Rungs:
1. Fabricate from 25 mm (one inch) diameter steel bars.
2. Fabricate so that rungs will extend at least 100 mm (4 inches) into wall with ends turned 50 mm (2 inches), project out from wall 175 mm (7 inches), be 400 mm (16 inches) wide and be designed so that foot cannot slide off end.
3. Galvanized after fabrication, ASTM A123, G-90 rungs for exterior use and for access to pits.

C. Aluminum fixed vertical ladder
1. Aluminum Fixed Vertical Ladder and Components: Ladder, cage, rest platforms, floor mounting brackets, security doors, walk-thru, and side rails.
   a. Basis of design model: Model FL - 337 inches. Aluminum Fixed Vertical Ladder as manufactured by Precision Ladders LLC. Or approved equal
   b. Capacity: Unit shall support a 1500 lb (680 kg) loading without failure, and individual treads shall withstand a 3,000 lb (1361 kg) loading without failure.
   c. Performance Standard: Units designed and manufactured to meet or exceed ANSI A14.3 and OSHA 1910.27.
2. Components:
   a. Ladder Stringer: 2-1/2 inch by 1-1/16 inch by 1/8 inch (64 mm by 27 mm by 3 mm) extruded 6005-T5 aluminum channel. Pitch: 90 degrees.
   b. Ladder Tread: 2-1/4 inch by 3/4 inch by 1/4 inch (57 mm by 19 mm by 6 mm) extruded 6005-T5 aluminum with deeply serrated top surface.
   c. Ladder Mounting Bracket: 8-1/2 inch by 2 inch by 3 inch by 1/4 inch thick (216 mm by 51 mm by 76 mm by 6 mm) aluminum angle.
   d. Walk-Thru:
      i. Hand Rails: 1-1/4 inch (32 mm) aluminum square tube with rounded edges.

ii. Mounting Brackets: 4 inch by 4 inch by 1/4 inch (102 mm by 102 mm by 6 mm) aluminum.

e. Side Rails: 42 inch (1067 mm) side rail extension for through ladder exits.

3. Safety Cage:
Vertical and horizontal bars: 1/4 inch by 2 inch (6 mm by 51 mm) 6005-T5 aluminum flat bar.

4. Floor Brackets: Floor bracket at foot of each stringer, 3 by 2 by 1/4 inch (76 by 51 by 6 mm).

5. Finishes:
a. Standard: Mill finish on aluminum ladder components.

6. Fabrication
a. Completely fabricate ladder ready for installation before shipment to the site.
b. Completely fabricate handrail components and ship to site ready for field assembly and attachment to ladder.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Set work accurately, in alignment and where shown, plumb, level, free of rack and twist, and set parallel or perpendicular as required to line and plane of surface.

B. Items set into concrete or masonry.
1. Provide temporary bracing for such items until concrete or masonry is set.
2. Place in accordance with setting drawings and instructions.
3. Build strap anchors, into masonry as work progresses.

C. Field weld in accordance with AWS.
1. Design and finish as specified for shop welding.
2. Use continuous weld unless specified otherwise.

D. Install anchoring devices and fasteners as shown and as necessary for securing metal fabrications to building construction as specified. Power actuated drive pins may be used except for removable items and where members would be deformed or substrate damaged by their use.

E. Spot prime all abraded and damaged areas of zinc coating as specified and all abraded and damaged areas of shop prime coat with same kind of paint used for shop priming.

F. Isolate aluminum from dissimilar metals and from contact with concrete and masonry materials as required to prevent electrolysis and corrosion.

G. Secure escutcheon plate with set screw.

3.2 INSTALLATION OF SUPPORTS

A. Anchorage to structure.

1. Secure angles or channels and clips to overhead structural steel by continuous welding unless bolting is shown.
2. Secure supports to concrete inserts by bolting or continuous welding as shown.
3. Secure supports to mid height of concrete beams when inserts do not exist with expansion bolts and to slabs, with expansion bolts. unless shown otherwise.
4. Secure steel plate or hat channels to studs as detailed.

3.3 STEEL LINTELS

A. Use lintel sizes and combinations shown or specified.

B. Install lintels with longest leg upstanding.

C. Install lintels to have not less than 150 mm (6 inch) bearing at each end.

3.4 SHELF ANGLES

A. Anchor shelf angles with 19 mm (3/4 inch) bolts unless shown otherwise in adjustable malleable iron inserts, set level at elevation shown.

B. Provide expansion space at end of members.

3.5 LADDERS

A. Anchor ladders to walls and floors with expansion bolts through turned lugs or angle clips or brackets.

B. In elevator pits, set ladders to clear all elevator equipment where shown on the drawings.

1. Where ladders are interrupted by division beams, anchor ladders to beams by welding, and to floors with expansion bolts.
2. Where ladders are adjacent to division beams, anchor ladders to beams with bent steel plates, and to floor with expansion bolts.

C. Ladder Rungs:

1. Set ladder rungs into formwork before concrete is placed. // Build ladder rungs into masonry as the work progresses. //
2. Set step portion of rung 150 mm (6 inches) from wall.
3. Space rungs approximately 300 mm (12 inches) on centers.
4. Where only one rung is required, locate it 400 mm (16 inches) above the floor.

3.6 CLEAN AND ADJUSTING

A. Adjust movable parts including hardware to operate as designed without binding or deformation of the members centered in the opening or frame and, where applicable, contact surfaces fit tight and even without forcing or warping the components.

B. Clean after installation exposed prefinished and plated items and items fabricated from stainless steel, aluminum and copper alloys, as recommended by the metal manufacture and protected from damage until completion of the project.

- - - E N D - - -

SECTION 07 27 26
FLUID-APPLIED MEMBRANE AIR BARRIERS, VAPOR PERMEABLE

PART 1 - GENERAL

1.1 DESCRIPTION:

This section specifies fluid-applied vapor-permeable membrane air barrier material and accessories used for exterior above grade wall assembly air barriers and their extension and connection to adjacent air barrier components in roof and opening construction to provide a durable, continuous, air- and moisture- impermeable full-building system.

1.2 RELATED WORK

A. General quality assurance and quality control requirements: Section 01 45 29 TESTING LABORATORY SERVICES.

B. Masonry units serving as substrate for membrane air barriers, including preparation of surface: Section 04 20 00 UNIT MASONRY.

C. //.

D. Flashing components of factory finished roofing and wall systems to which membrane air barriers will transition: Division 07 roofing and wall system sections.

E. Other flashing components to which membrane air barriers will transition: Section 07 60 00 FLASHING AND SHEET METAL.

F. Joint Sealants: Section 07 92 00, JOINT SEALANTS.

G. Division 08 exterior openings sections for opening transitions providing airtight seal between membrane air barrier and aluminum-framed entrances and storefronts [louvers and vents].

H. Wall sheathings serving as substrate for membrane air barriers: Section 09 29 00 GYPSUM BOARD.

1.3 APPLICABLE PUBLICATIONS

A. Publications listed below form a part of this specification to the extent referenced. Publications are referenced in the text by the basic designation only. Editions of applicable publications current on date of issue of bidding documents apply unless otherwise indicated.

1. American Society of Testing and Materials (ASTM):

C920-10.....Standard Specification for Elastomeric Joint Sealants

C1193-09.....Standard Guide for Use of Joint Sealants

D412-06.....Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension

D2369-10.....Standard Test Method for Volatile Content of Coatings

E96/E96M-05.....Standard Test Methods for Water Vapor Transmission of Materials

E162-09.....Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source

E783-02.....Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors

E1186-03(2009).....Standard Practices for Air Leakage Site Detection in Building Envelopes and Air Barrier Systems

E2178-03.....Standard Test Method for Air Permeance of Building Materials

E2357-05.....Standard Test Method for Determining Air Leakage of Air Barrier Assemblies

3. U.S. Environmental Protection Agency (EPA)

40 CFR 59, Subpart D....National Volatile Organic Compound Emission Standards for Consumer and Commercial Products

4. SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD):

1168-89(2003).....Adhesive and Sealant Applications

1.4 PERFORMANCE REQUIREMENTS

A. General: Membrane air barrier shall be capable of performing as a continuous vapor- permeable air barrier and as a moisture drainage plane transitioned to adjacent flashings and discharging water to the building exterior. Membrane air barriers shall accommodate substrate movement and seal expansion and control joints, construction material transitions, opening transitions, penetrations, and perimeter conditions without moisture deterioration and air leakage exceeding performance requirements.

B. Air-Barrier Assembly Air Leakage: Maximum 0.2 L/s x sq. m of surface area at 75 Pa (0.04 cfm/sq. ft. of surface area at 1.57 lbf/sq. ft.)per ASTM E 2357.

D. Material Compatibility: Provide membrane air barrier materials that are compatible with one another and with adjacent materials under conditions of service and application required, as demonstrated by membrane air barrier manufacturer based on testing and field experience.

1.5 QUALIFICATIONS:

A. Approvals: Approval by Contracting Officer is required of products and services of proposed manufacturers, and installers, and will be based upon submission by Contractor that:

B. Manufacturer Qualifications: Manufacturer regularly and presently manufactures fluid-applied membrane air barrier material meeting section requirements as one of its principal products.

1. Manufacturer's product submitted has been in satisfactory and efficient operation on five similar installations for at least five years.
   a. Submit list of installations, include name and location of project and name of owner.

C. Installer Qualifications: Installer has technical qualifications, experience, certifications, trained personnel, membrane air barrier manufacturer's approval, and facilities to install specified items.

1. Installer's applicators shall be trained and certified by manufacturer of air barrier system.
2. Installer's full time on-site field supervisor shall have completed three projects of similar scope within last year, be able to communicate verbally with Contractor, Architect, testing agency, and employees.
   a. Certification: Installer's supervisor shall hold Sealant, Waterproofing, and Restoration Institute (SWRI) Wall Coating Validation Program Certificate, or similar qualification acceptable to Resident Engineer.

1.6 SUBMITTALS:

A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

B. Manufacturer's Literature and Data:

1. Fluid-applied membrane air barrier.

2. Primer.
3. Mastic.
4. Counterflashing strip.
5. Modified bituminous strip.
6. Sprayed polyurethane foam sealant.
7. Opening transition assembly.
8. Joint sealant.
9. Printed installation instructions for conditions specified.

C. Certificates:
1. Indicating membrane air barrier manufacturer's qualifications as specified.
2. Indicating approval of installer by membrane air barrier manufacturer.
3. Indicating qualifications of installer and installer's personnel.
4. Indicating air barrier manufacturer's determination that proposed materials are chemically and adhesively compatible with adjacent materials.

1.7 COORDINATION:

A. Coordinate installation of work of this Section with adjacent and related work to ensure provision of continuous, unbroken, durable air barrier system.

1.8 PRODUCT DELIVERY, STORAGE AND HANDLING:

A. Deliver materials to job in manufacturer's original unopened containers.

B. Do not store material in areas where temperature is lower than 10 degrees C (50 degrees F,) or where prolonged temperature is above 32 degrees C (90 degrees F).

1.9 ENVIRONMENTAL REQUIREMENTS:

Ambient Surface and Material Conditions: Not less than 4 degrees C (40 degrees F), during application of waterproofing, visibly dry, and complying with manufacturer's written instructions.

1.10 WARRANTY:

Warrant membrane air barrier installation against air and moisture leaks subject to terms of "Warranty of Construction", FAR clause 52.246-21, except that warranty period is two years.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Source Limitations: Obtain membrane air barrier materials and accessories from single manufacturer.

B. VOC Content: Maximum 250 g/L per 40 CFR 59, Subpart D (EPA Method 24).

2.2 MEMBRANE AIR BARRIER:

A. Fluid-Applied, Vapor-Permeable Membrane Air Barrier: Elastomeric, modified bituminous or synthetic polymer membrane, meeting the following:

1. Air Permeance, ASTM E 2178: 0.02 L/s x sq. m of surface area at 75-Pa (0.004 cfm/sq. ft of surface area at 1.57-lbf/sq. ft.) pressure difference.
2. Vapor Permeance, ASTM E 96/E96M: Minimum 580 ng/Pa x s x sq. m (10 perms).
3. Elongation, Ultimate, ASTM D 412, Die C: 200 percent, minimum.
4. Combustion Characteristics: Flame spread, not greater than 25; smoke developed, not greater than 450, ASTM E 84.
5. Thickness of Membrane Air Barrier: Not less than 1.0 mm (40 mils), applied in single continuous coat.

2.3 ACCESSORY MATERIALS:

A. Primer: Liquid waterborne primer meeting VOC requirements, recommended for substrate by membrane air barrier manufacturer.

B. Counterflashing Sheet: Modified bituminous, 1.0-mm- (40-mil- thick self-adhering composite sheet consisting of 0.9 mm (36 mils) of rubberized asphalt laminated to polyethylene film.

C. Substrate Patching Material: Manufacturer's standard trowel-grade filler material.

D. Sprayed Polyurethane Foam Sealant: Foamed-in-place, 24- to 32-kg.cu. m (1.5- to 2.0-lb/cu. ft) density, with flame-spread index of 25 or less per ASTM E 162.

E. Flexible Opening Transition: Cured low-modulus silicone extrusion with reinforcing ribs, sized to fit opening widths, designed for adhesion to or insertion into aluminum framing extrusions, and compatible with air barrier system materials and accessories.

F. Joint Sealant: ASTM C 920, single-component, neutral-curing silicone; Class 100/50 (low modulus), Grade NS, Use NT related to exposure, approved by membrane air barrier manufacturer for adhesion and compatibility with membrane air barrier and accessories.

PART 3 - EXECUTION

3.1 EXAMINATION:

A. Surface Condition: Before applying membrane air barrier materials, ensure substrates are fully cured, smooth, clean, dry, and free from high spots, depressions, loose and foreign particles and other deterrents to adhesion.

B. Verify concrete surfaces have cured for time period recommended by membrane air barrier manufacturer, free from release agents, concrete curing agents, and other contaminates.

C. Verify masonry joints are flush and filled with mortar.

3.2 INTERFACE WITH OTHER WORK

A. Commencement of Work: Commence work once membrane air barrier substrates are adequately protected from weather and will remain protected during remainder of construction.

B. Sequencing of Work: Coordinate sequencing of work with work of other sections that form portions of building envelope air barrier to ensure that flashings and transition materials can be properly installed.

C. Subsequent Work: Coordinate work with work of other sections installed subsequent to membrane air barrier to ensure complete inspection of installed membrane air barrier and sealing of membrane air barrier penetrations necessitated by subsequent work.

3.3 AIR BARRIER INSTALLATION

A. General: Prepare substrates and install and apply air barrier components in accordance with air barrier manufacturer's written instructions consistent with manufacturer's qualifying tested assemblies.

3.4 PREPARATION

A. Prepare and treat substrate in accordance with membrane air barrier manufacturer's written instructions.

B. Mask adjacent finished surfaces.

C. Remove contaminants and film-forming coatings from concrete.

D. Remove projections and excess materials and fill voids with substrate patching material.

E. Prepare and treat joints and cracks in substrate per ASTM C 1193 and membrane air barrier manufacturer's written instructions.

F. Apply primer to substrates.

3.5 APPLICATION OF TRANSITION STRIPS

A. Install transition strips and accessory materials according to membrane air barrier manufacturer's written instructions.

B. Connect and seal membrane air barrier material to adjacent components of building air barrier system, including, but not limited to, roofing system air barrier, exterior glazing and window systems, curtain wall systems, door framing, and other openings.

C. Flexible Opening Transition: Prime concealed perimeter frame surfaces of storefronts, louvers, and doors. Apply flexible opening transition so that a minimum of 75 mm (3 inches) over coverage is achieved over each substrate.

1. Fill gaps at perimeter of openings with foam sealant.

D. Penetrations: Fill gaps at perimeter of penetrations with foam sealant. Seal transition strips around penetrating objects with termination mastic.

E. Flashings: Seal top of through-wall flashings to membrane air barrier with continuous transitions strip of type recommended by membrane air barrier manufacturer for type of flashing.

3.6 FLUID AIR-BARRIER MEMBRANE INSTALLATION

A. Apply fluid membrane air barrier material in full contact with substrate to produce a continuous seal with transition strips according to membrane air barrier manufacturers written instructions.

1. Apply fluid membrane in thickness recommended by manufacturer, but not less than thickness specified in this section.

B. Leave membrane air barrier exposed until tested and inspected by testing agency and approved by Resident Engineer.

C. Correct deficient applications not passing tests and inspections, make necessary repairs, and retest as required to demonstrate compliance with requirements.

3.7 TESTING:

A. Testing Agency: Contractor shall engage a qualified testing agency to perform tests and inspections, including documenting of membrane air barrier prior to concealment.

1. Inspections: Air-barrier materials, accessories, and installation are subject to inspection for compliance with requirements, including the following:
2. Continuity of air-barrier system has been achieved throughout the building envelope with no gaps or holes.
3. Continuous structural support of air-barrier system has been provided.
4. Masonry and concrete surfaces are smooth, clean, and free of cavities, protrusions, and mortar droppings.
5. Site conditions for application temperature and dryness of substrates have been maintained.
6. Maximum exposure time of materials to UV deterioration has not been exceeded.
7. Surfaces have been primed, if applicable.
8. Laps in strips and transition strips have complied with minimum requirements and have been shingled in the correct direction (or mastic has been applied on exposed edges), with no fishmouths.
9. Termination mastic has been applied on cut edges.
10. Strips and transition strips have been firmly adhered to substrate.
11. Compatible materials have been used.
12. Transitions at changes in direction and structural support at gaps have been provided.
13. Connections between assemblies (air-barrier and sealants) have complied with requirements for cleanliness, surface preparation and priming, structural support, integrity, and continuity of seal.
14. All penetrations have been sealed.
15. Inspections and testing shall be carried out at the following rate:
    a. Up to 10,000 square feet (930 square meters) – one inspection
    b. 10,001 – 35,000 square feet (931 – 3,250 square meters) – two inspections
    c. 35,001 – 75,000 square feet (3,251 – 6,970 square meters) – three inspections

d. 75,001 - 125,000 square feet (6,971 – 11,610 square meters) – four inspections

e. 125,001 – 200,000 square feet (11,611 – 18,580 square meters) – five inspections

f. Over 200,00 square feet (18,580 square meters) – six inspections.

16. Forward written inspection reports to the Resident Engineer within 5 working days of the inspection and test being performed.

17. If the inspections reveal any defects, promptly remove and replace defective work at no additional cost to the Owner.

B. Inspections shall include:

1. Compatibility of materials within membrane air barrier system and with adjacent materials.
2. Suitability of substrate and support for membrane air barrier materials.
3. Suitability of conditions under which membrane air barrier will be applied.
4. Adequacy of substrate priming.
5. Proper application and joint and edge treatment of transition strips, flexible opening transitions, and accessory materials.
6. Continuity and gap-free installation of membrane air barrier, transition strips, and accessory materials.

3.8 CLEANING AND PROTECTION

A. Clean spills, stains, and overspray resulting application utilizing cleaning agents recommended by manufacturers of affected construction. Remove masking materials.

B. Protect membrane air barrier from damage from subsequent work. Protect membrane materials from exposure to UV light in excess of that acceptable to membrane air barrier manufacturer; replace overexposed materials and retest.

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SECTION 08 90 00
LOUVERS AND VENTS

PART 1 - GENERAL

1.1 DESCRIPTION

This section specifies fixed and operable wall louvers, door louvers and wall vents.

1.2 SUBMITTALS

A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

B. Shop Drawings:
Each type, showing material, finish, size of members, method of assembly, and installation and anchorage details.

C. Manufacturer's Literature and Data:
Each type of louver and vent.

1.4 APPLICABLE PUBLICATIONS

A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.

B. The Master Painters Institute (MPI):
Approved Product List – September 2011

C. American Society for Testing and Materials (ASTM):
B209/B209M-03(R2007)....Aluminum and Aluminum Alloy, Sheet and Plate
B221-08.....Aluminum and Aluminum Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes
B221M-07.....Aluminum and Aluminum Alloy Extruded Bars, Rods, Wire Shapes, and Tubes

D. National Association of Architectural Metal Manufacturers (NAAMM):
AMP 500-06.....Metal Finishes Manual

E. National Fire Protection Association (NFPA):
90A-09.....Installation of Air Conditioning and Ventilating Systems

G. American Architectural Manufacturers Association (AAMA):
2605-11.....High Performance Organic Coatings on Architectural Extrusions and Panels

H. Air Movement and Control Association, Inc. (AMCA):
500-L-07.....Testing Louvers

PART 2 - PRODUCTS

2.1 MATERIALS

A. Aluminum, Extruded: ASTM B221/B221M.

D. Aluminum, Plate and Sheet: ASTM B209/B209M.

E. Fasteners: Fasteners for securing louvers and wall vents to adjoining construction, except as otherwise specified or shown, shall be toggle or expansion bolts, of size and type as required for each specific type of installation and service condition.

1. Where type, size, or spacing of fasteners is not shown or specified, submit shop drawings showing proposed fasteners, and method of installation.
2. Fasteners for louvers, louver frames, and wire guards shall be of stainless steel or aluminum.

F. Inorganic Zinc Primer: MPI No. 19.

2.2 EXTERIOR WALL LOUVERS

A. General:

1. Provide fixed type louvers of size and design shown.
2. Heads, sills and jamb sections shall have formed caulking slots or be designed to retain caulking. Head sections shall have exterior drip lip, and sill sections an integral water stop.
3. Furnish louvers with sill extension or separate sill.
4. Frame shall be mechanically fastened or welded construction with welds dressed smooth and flush.

B. Performance Characteristics:

1. Weather louvers shall have a minimum percent free area as scheduled and shall be tested per AMCA standard.
2. Louvers shall bear AMCA certified rating seals for air performance and water penetration ratings.

C. Aluminum Louvers:

1. General: Frames, blades, sills and mullions (sliding interlocking type); 2 mm (0.081-inch) thick extruded aluminum. Blades shall be drainable type and have reinforcing bosses.
2. Louvers, fixed: Make frame sizes 13 mm (1/2-inch) smaller than openings. Single louvers frames shall not exceed 1700 mm (66 inches) wide. When openings exceed 1700 mm (66 inches), provide twin louvers separated by mullion members.

2.3 CLOSURE ANGLES AND CLOSURE PLATES

A. Fabricate from 2 mm (0.074-inch) thick aluminum.

B. Provide continuous closure angles and closure plates on inside head, jambs and sill of exterior wall louvers.

C. Secure angles and plates to louver frames with screws, and to masonry or concrete with fasteners as specified.

2.4 WIRE GUARDS

A. Provide wire guards on outside of all exterior louvers, except on exhaust air louvers.

B. Fabricate frames from 2 mm (0.081-inch) thick extruded or sheet aluminum designed to retain wire mesh.

C. Wire mesh shall be woven from not less than 1.6 mm (0.063-inch) diameter aluminum wire in 13 mm (1/2-inch) square mesh.

D. Miter corners and join by concealed corner clips or locks extending about 57 mm (2-1/4 inches) into rails and stiles. Equip wire guards over four feet in height with a mid-rail constructed as specified for frame components.

E. Fasten frames to outside of louvers with aluminum or stainless steel devices designed to allow removal and replacement without damage to the wire guard or the louver.

2.10 FINISH

A. In accordance with NAAMM Metal Finishes Manual: AMP 500-505

B. Aluminum Louvers and Wire Guards:

1. A. Baked-Enamel or Powder-Coat Finish: AAMA 2603 except with a minimum dry film thickness of 1.5 mils (0.04 mm). Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.
2. Color and Gloss: As selected by Architect from manufacturer's full range.

2.11 PROTECTION

A. Provide protection for aluminum against galvanic action wherever dissimilar materials are in contact, by painting the contact surfaces of the dissimilar material with a heavy coat of bituminous paint (complete coverage), or by separating the contact surfaces with a performed synthetic rubber tape having pressure sensitive adhesive coating on one side.

B. Isolate the aluminum from plaster, concrete and masonry by coating aluminum with zinc-chromate primer.

C. Protect finished surfaces from damage during fabrication, erection, and after completion of the work.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Set work accurately, in alignment and where shown. Items shall be plumb, level, free of rack and twist, and set parallel or perpendicular as required to line and plane of surface.

B. Furnish setting drawings and instructions for installation of anchors and for the positioning of items having anchors to be built into masonry construction. Provide temporary bracing for such items until masonry is set.

C. Provide anchoring devices and fasteners as shown and as necessary for securing louvers to building construction as specified. Power actuated drive pins may be used, except for removal items and where members would be deformed or substrate damaged by their use.

D. Generally, set wall louvers in masonry walls during progress of the work. If wall louvers are not delivered to job in time for installation in prepared openings, make provision for later installation. Set in cast-in-place concrete in prepared openings.

3.2 CLEANING AND ADJUSTING

A. After installation, all exposed prefinished and plated items and all items fabricated from stainless steel and aluminum shall be cleaned as recommended by the manufacturer and protected from damage until completion of the project.

B. All movable parts, including hardware, shall be cleaned and adjusted to operate as designed without binding or deformation of the members, so as to be centered in the opening of frame, and where applicable, to have all contact surfaces fit tight and even without forcing or warping the components

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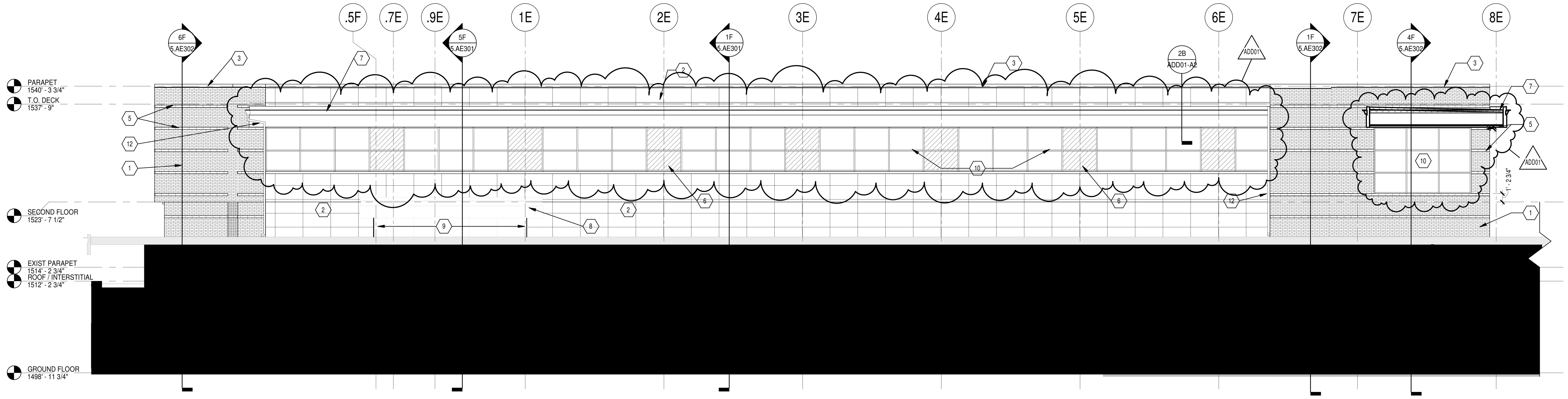
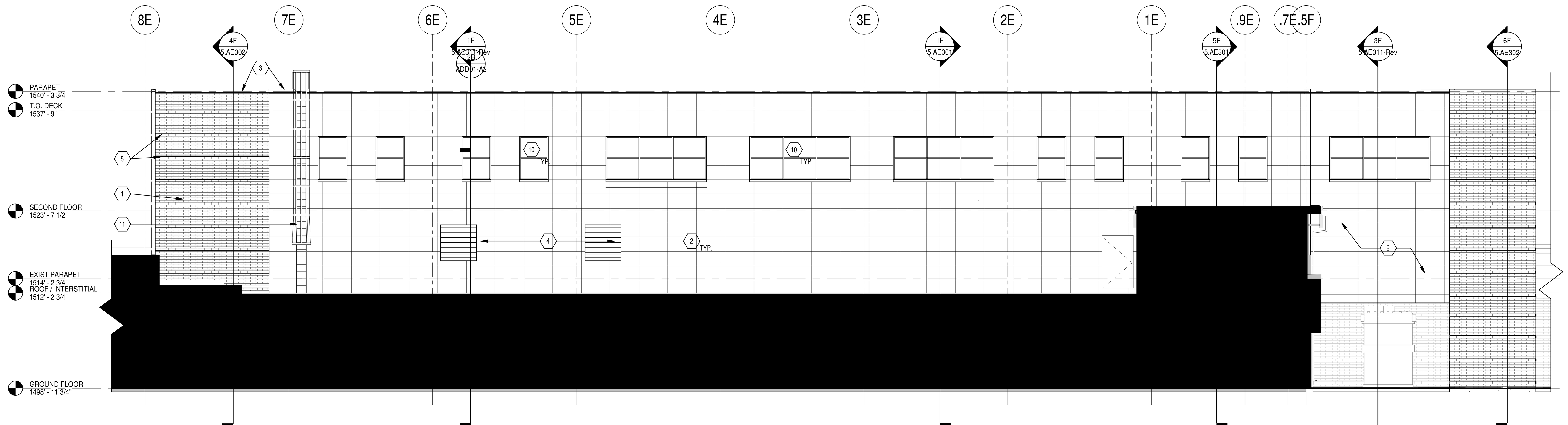
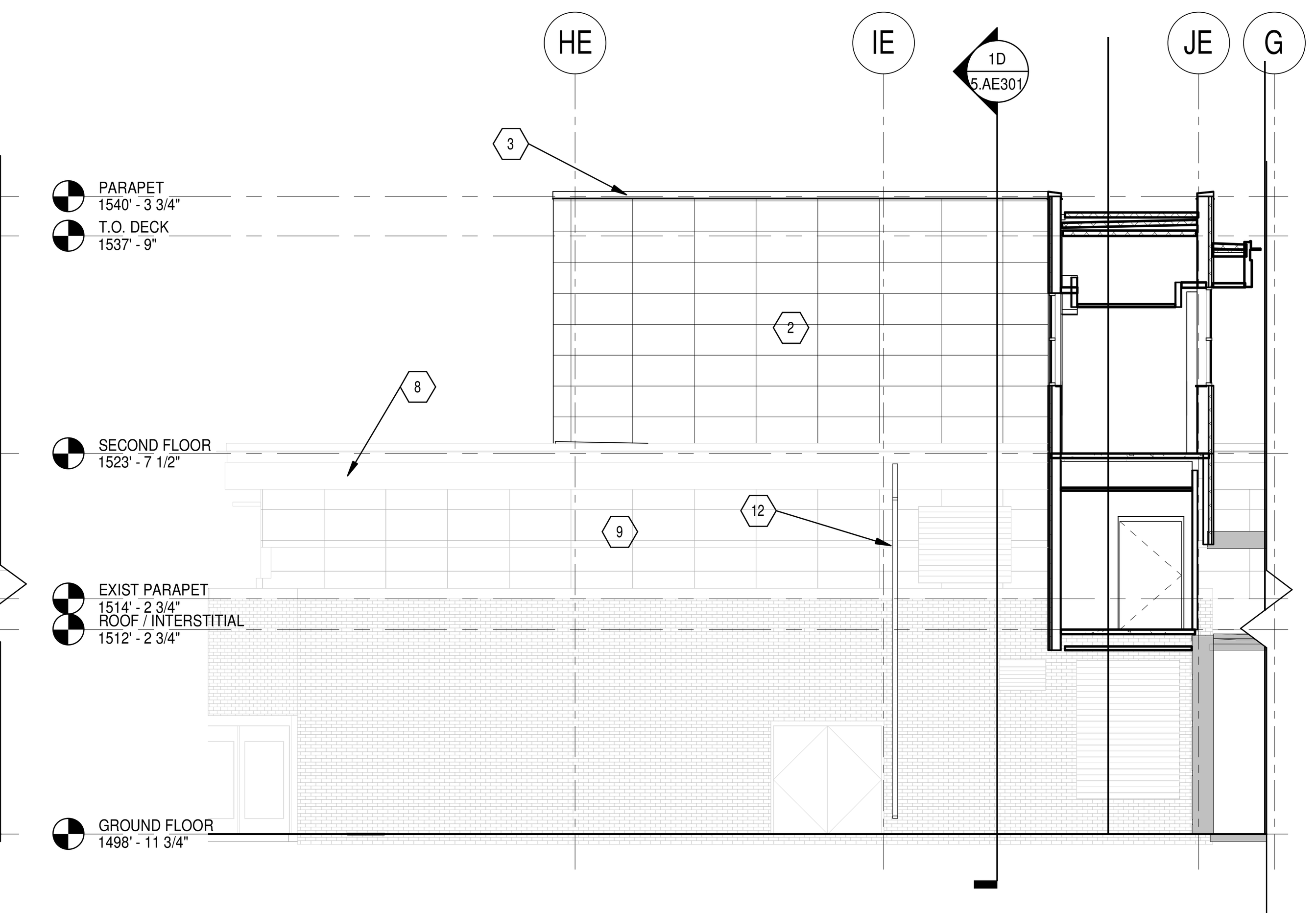


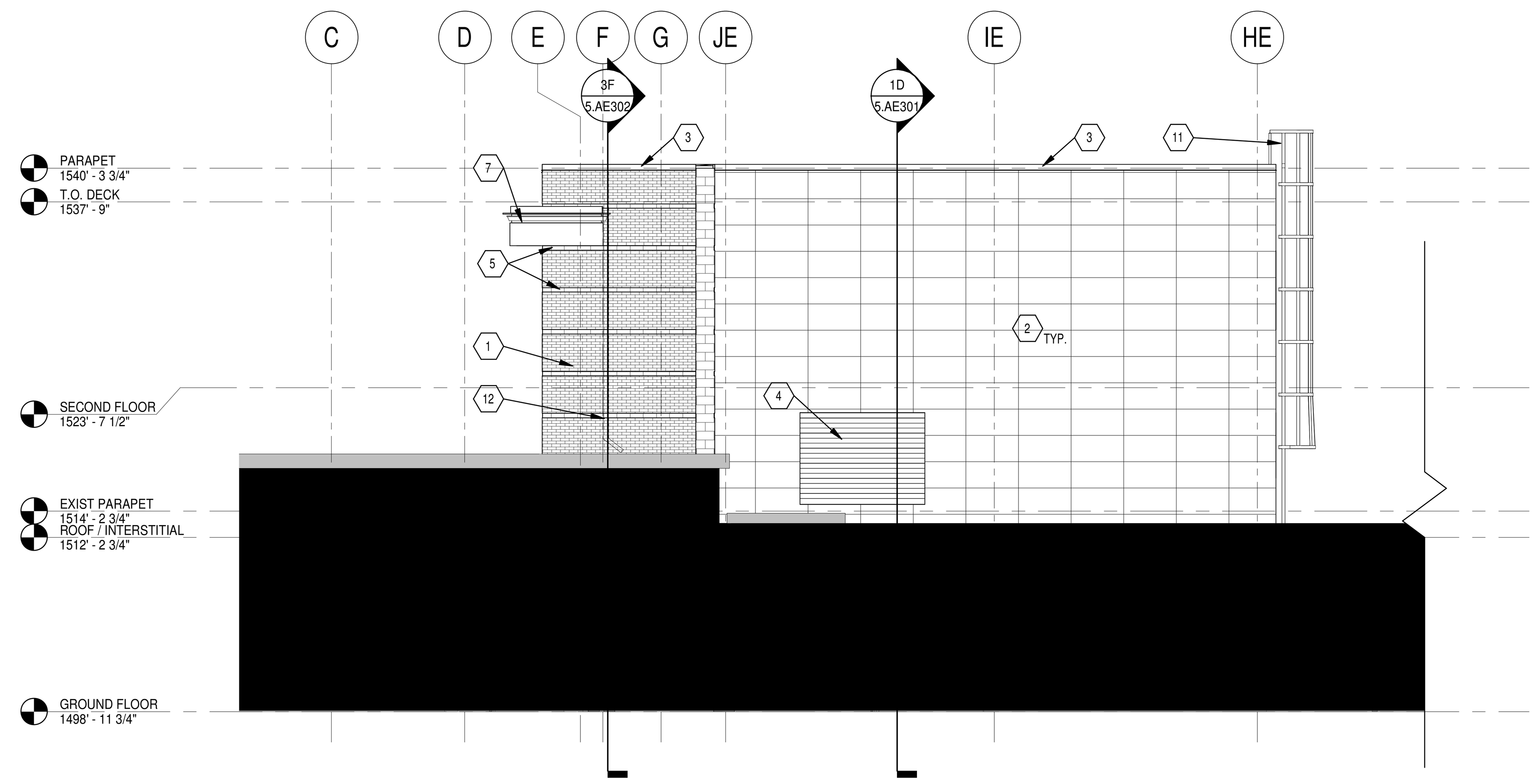
1B ELEVATION - EAST
1/8" = 1'-0"



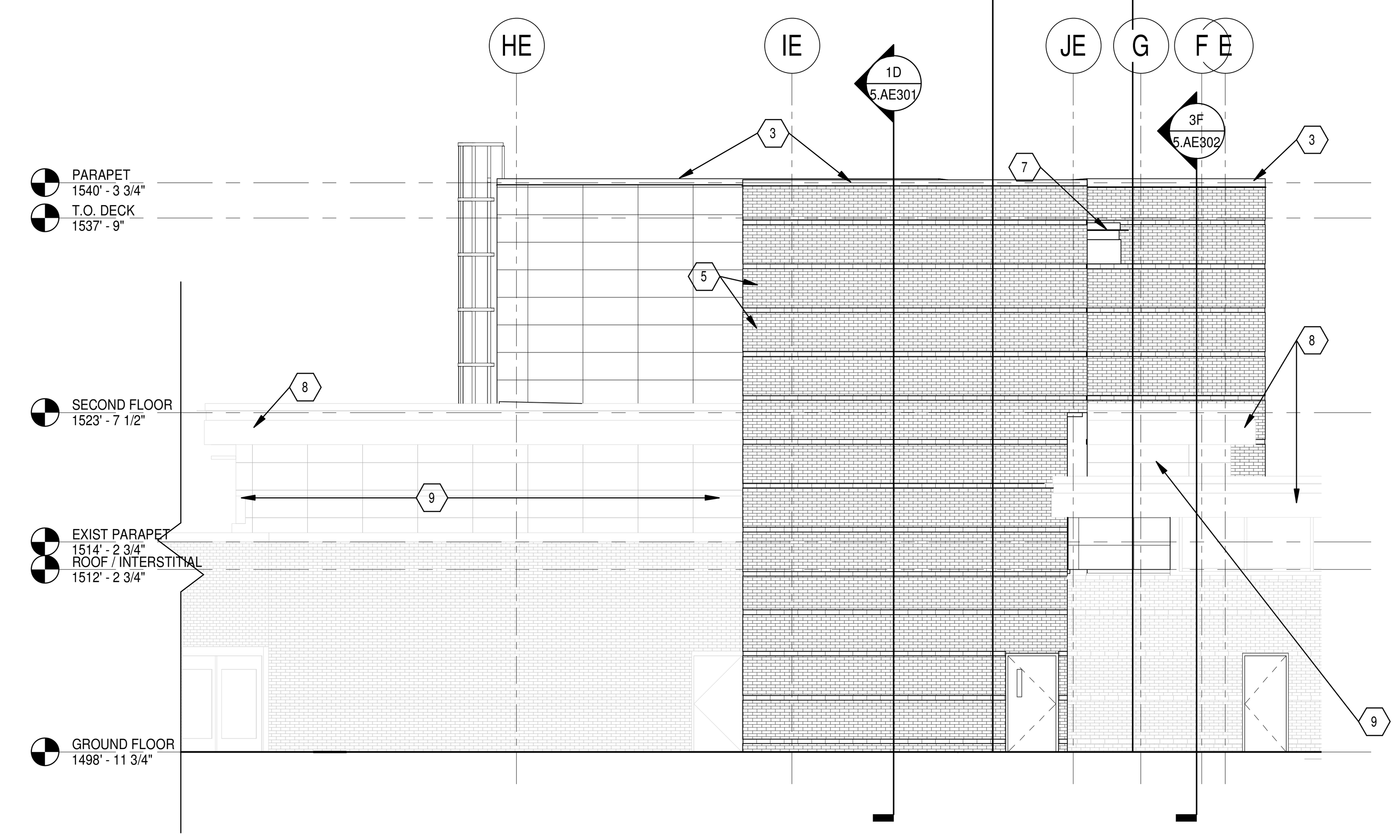
1D ELEVATION - WEST
1/8" = 1'-0"



6D ELEVATION - SOUTH 2
1/8" = 1'-0"



1F ELEVATION - NORTH
1/8" = 1'-0"



5F ELEVATION - SOUTH
1/8" = 1'-0"

ELEVATION GENERAL NOTES

A. APPLY SEALANT AND BACKER ROD TO ALL JOINTS BETWEEN DISSIMILAR MATERIALS.

B. ALL SURFACES DAMAGED DURING DEMOLITION SHALL BE REPAIRED FOR APPLICATION OF NEW FINISHES OR PATCHED TO MATCH EXISTING.

C. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS WHICH ARE TO MATCH EXISTING CONSTRUCTION. CONTACT A/E WITH DISCREPANCIES.

EXTERIOR ELEVATION KEYNOTES

1. EXTERIOR BRICK SYSTEM. REFERENCE 5.AE501 FOR WALL ASSEMBLY.
2. METAL WALL PANEL SYSTEM.
3. PREFINISHED METAL COPING
4. MECHANICAL LOUVER TO MATCH ADJACENT SURFACE.
5. PRECAST CONCRETE REVEAL. REFERENCE WALL SECTIONS.
6. SPANDREL GLASS.
7. FASCIA / CANOPY SYSTEM. REFERENCE 2B/5.AE511. REFER TO STRUCTURAL FOR INFORMATION.
8. EXISTING FASCIA. PATCH & REPAIR AS NECESSARY.
9. EXISTING METAL WALL PANELS. PATCH AND REPAIR AS NECESSARY.
10. ALUMINUM STOREFRONT SYSTEM.
11. CAGED LADDER. REFERENCE SPECIFICATIONS.
12. PREFINISHED METAL DOWNSPOUT.

NOTE: NOT ALL KEYNOTES MAY BE USED ON EACH PLAN

100% CONSTRUCTION DOCUMENTS
- FULLY SPRINKLERED

REVISION	MARK	DATE
ADDENDUM #1	ADD01	06/09/2014

CONSULTANTS:

DATE: 1-6-2014

ARCHITECTS/ENGINEERS:

TSP, Inc.
1112 N. West Ave,
Sioux Falls, SD 57104
phone: (605) 336-1160
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www.teamtsp.com
TSP# 04121121

To Solve. To Excel. Together.

Drawing Title: EXTERIOR ELEVATIONS

Approved: Project Director

Project Title: PRIMARY CARE ADDITION

Location: VA Medical Center 2501 W. 22nd Street, PO Box 5046 Sioux Falls, South Dakota

Date: 01/06/2014 | Checked: EOO | Drawn: EOO, MHY

Project No.: VA# VA263-P-1038

Building Number: 5

Drawing No.: 5.AE201-Rev

Dwg. 22 of 61

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

VA FORM 08-6231

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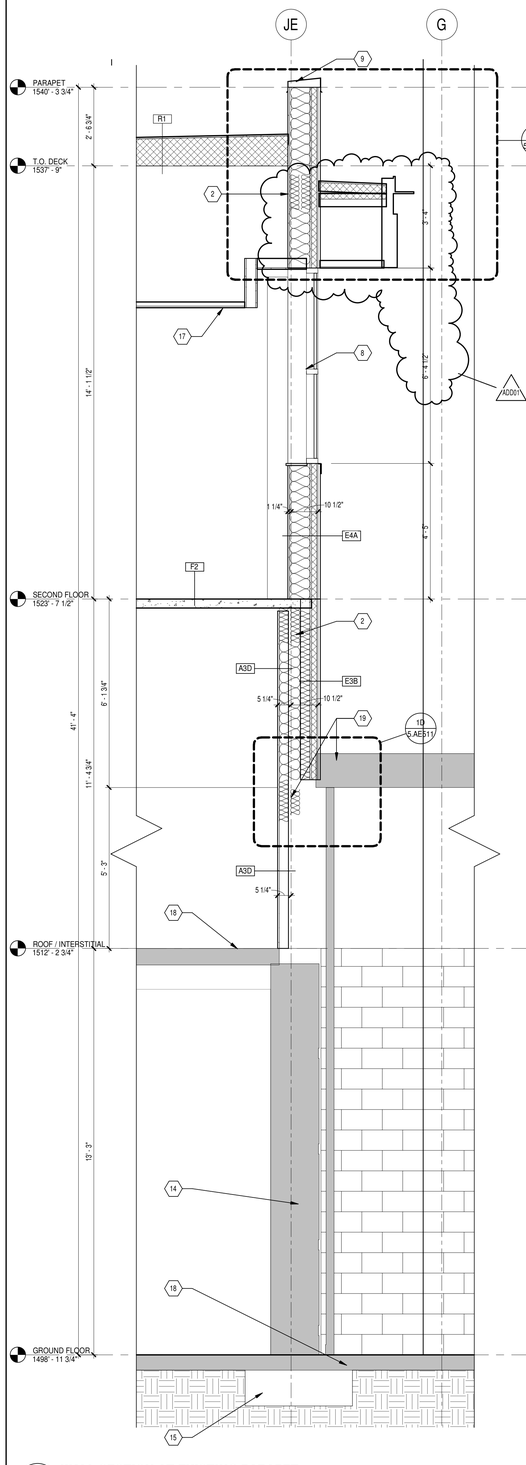
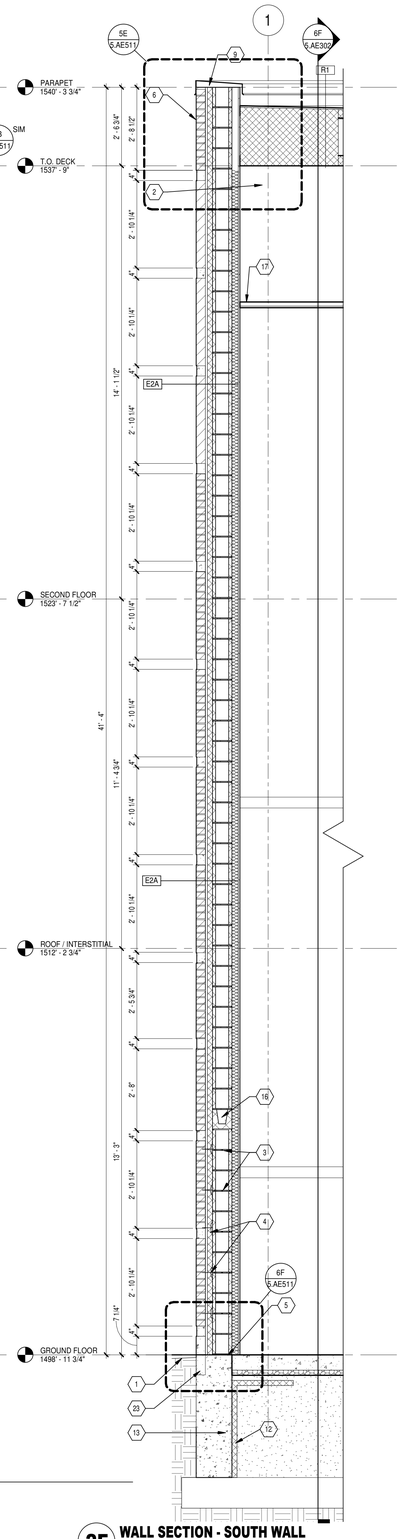
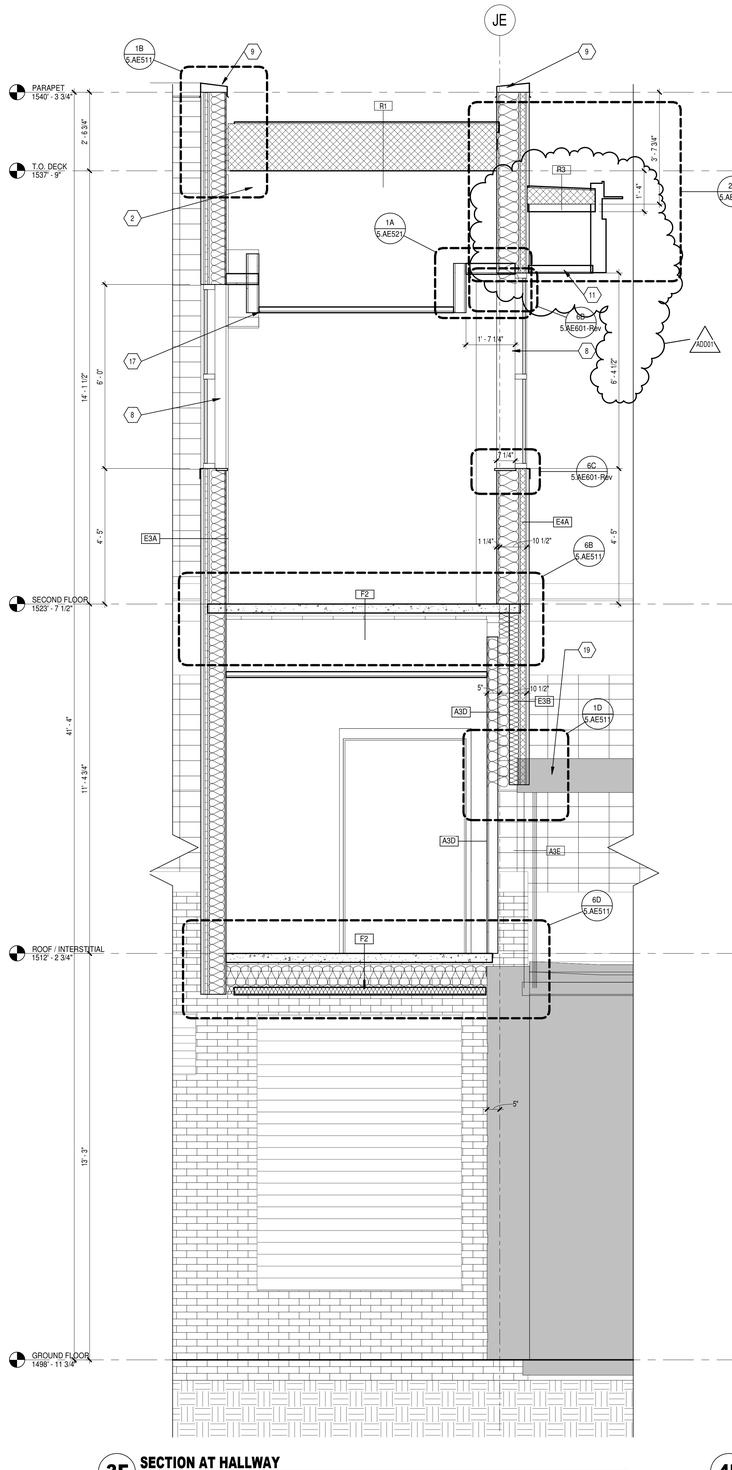


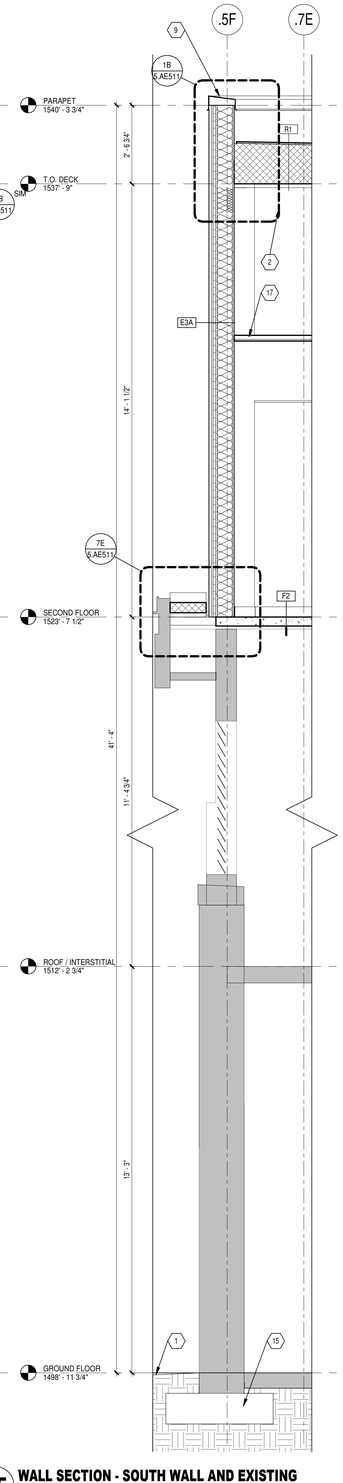
1F **WALL SECTION AT EXISTING PARAPET**
1/2" = 1'-0"



2F **WALL SECTION - SOUTH WALL**
1/2" = 1'-0"



3F **SECTION AT HALLWAY**
1/2" = 1'-0"



4F **WALL SECTION - SOUTH WALL AND EXISTING**
1/2" = 1'-0"

WALL SECTION KEYNOTES

1. APPROXIMATE GRADE.
2. STRUCTURAL STEEL. REFER TO STRUCTURAL.
3. MASONRY REINFORCEMENT @ 16" O.C. TYP.
4. ADJUSTABLE MASONRY ANCHOR @ 16" O.C. MAXIMUM TYP.
5. PLASTIC HONEYCOMB WEEPS @ 24" O.C.
6. PLASTIC HONEYCOMB VENTS @ 24" O.C.
7. CAST STONE SILL.
8. ALUMINUM STORE FRONT SYSTEM.
9. PREFINISHED METAL COPING.
10. METAL FLASHING.
11. FLAT SEAM METAL PANEL OVER 1/2" TREATED PLYWOOD SHEATHING.
12. 2" RIGID INSULATION.
13. SHEET WATERPROOFING. REFER TO SPECS.
14. EXISTING WALL ASSEMBLY.
15. EXISTING FOOTING/FOUNDATION WALL.
16. BOND BEAM AS OCCURS. REF. STRUCTURAL. TYP.
17. CEILING. REFERENCE CEILING PLANS.
18. EXISTING FLOOR/STRUCTURE.
19. EXISTING ROOF ASSEMBLY AND STRUCTURE.
20. PREFINISHED METAL SILL.
21. RIGID INSULATION INFILL TO SLOPE AWAY FROM BUILDING.
22. 2'x3' WALL VENT
23. 8" BRICK LEDGE. COORDINATE COURSING WITH EXISTING. REFERENCE STRUCTURAL.

NOTE: NOT ALL KEYNOTES MAY BE USED ON EACH PLAN

100% CONSTRUCTION DOCUMENTS
- FULLY SPRINKLERED

REVISION	MARK	DATE
ADDENDUM #1	ADD01	06/09/2014

CONSULTANTS:

REGISTERED PROFESSIONAL ARCHITECT
REG. NO. 3199
STATE OF SOUTH DAKOTA
1-6-2014

ARCHITECTS/ENGINEERS:

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www.teamtsp.com
TSP# 04121121

TSP
To Solve. To Excel. Together.

Drawing Title: **WALL SECTIONS**

Approved: Project Director

Project Title: **PRIMARY CARE ADDITION**

Location: VA Medical Center 2501 W. 22nd Street, PO Box 5046 Sioux Falls, South Dakota

Date: 01/06/2014 | Checked: EOO | Drawn: EOO

Project No.: VA# VA263-P-1038

Building Number: 5

Drawing No.: **5.AE311-Rev**

Dwg. 25 of 61

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

VA FORM 08-6231

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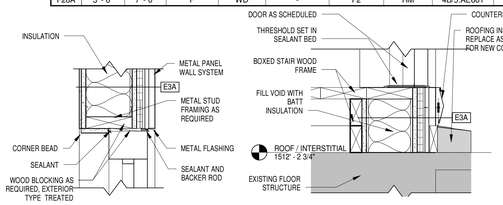
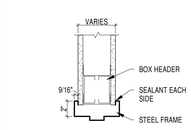
DOOR SCHEDULE													
	DOOR					FRAME							
	SIZE												
MARK	WIDTH	HEIGHT	TYPE	MATERIAL	GLAZING	TYPE	MATERIAL	HEAD	JAMB	THRESHOLD	RATING	HDWR	REMARKS
1000	3' - 0"	7' - 0"	F	HM	-	F2	HM	4D/5.AE601	5D/5.AE601			1	
1001	4' - 0"	7' - 0"	F	HM	-	F1	HM	1C/5.AE601	1C/5.AE601	2C/5.AE601		2	
1002	3' - 0"	7' - 0"	F	WD	-	F1	HM	1D/5.AE601	2D/5.AE601	-		3	
1003	3' - 0"	7' - 0"	F	WD	-	F1	HM	1D/5.AE601	2D/5.AE601	-		3	
1004	4' - 0"	7' - 0"	F	WD	-	F2	HM	5C/5.AE601	6D/5.AE601	5C/5/AE601		4	EMERGENCY USE ONLY
1005	4' - 0"	7' - 0"	F	HM	-	F2	HM	4D/5.AE601	5D/5.AE601	-	90 MIN	5	
2000A	3' - 0"	7' - 0"	N	WD	G5	F2	HM	4D/5.AE601	5D/5.AE601	-	90 MIN	1	
2000B	4' - 0"	7' - 0"	N	HM	G5	F2	HM	4D/5.AE601	5D/5.AE601	-	90 MIN	5	
2001A	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		6	
2001B	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		6	
2001C	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		6	
2002	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		17	RELOCATED FROM RM #F05A
2003	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		6	
2004	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		6	
2005	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		3	
2006	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		7	
2007	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		7	
2008	3' - 6"	7' - 0"	N	WD	G3	F1	HM	1D/5.AE601	2D/5.AE601	-		8	-
2009	3' - 6"	7' - 0"	N	WD	G3	F1	HM	1D/5.AE601	2D/5.AE601	-		9	-
2010A	4' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		10	
2010B	4' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		10	
2011A	3' - 6"	7' - 0"	N	WD	G3	F1	HM	1D/5.AE601	2D/5.AE601	-		11	-
2011B	3' - 6"	7' - 0"	N	WD	G3	F1	HM	1D/5.AE601	2D/5.AE601	-		11	-
2013	3' - 0"	7' - 0"	N	WD	G3	F1	HM	1D/5.AE601	2D/5.AE601	-		6	-
2014	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		6	
2015	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		6	
2016	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		6	
2017	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		6	
2018	3' - 6"	7' - 0"	N	WD	G3	F1	HM	1D/5.AE601	2D/5.AE601	-		12	-
F05A	3' - 0"	7' - 0"	F	WD	-	F1	HM	1D/5.AE601	2D/5.AE601	-	-	13	
F07	3' - 0"	7' - 0"	F	WD		F1	HM	1D/5.AE601	2D/5.AE601	-		7	
F07A	3' - 6"	7' - 0"	N	WD	G5	F2	HM	4D/5.AE601	5D/5.AE601	-	90 MIN	14	
F08	3' - 0"	7' - 0"	F	WD	-	F2	HM	4D/5.AE601	5D/5.AE601	-	-	15	
F28	3' - 6"	7' - 0"	F	WD	-	F2	HM	3D/5.AE601		3D/5.AE601	90 MIN	14	
F28A	3' - 6"	7' - 0"	F	WD	-	F2	HM	4B/5.AE601		4C/5.AE601	90 MIN	16	

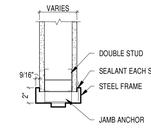


1C DOOR HEAD DETAIL @ MTL PNL
1 1/2" = 1'-0"

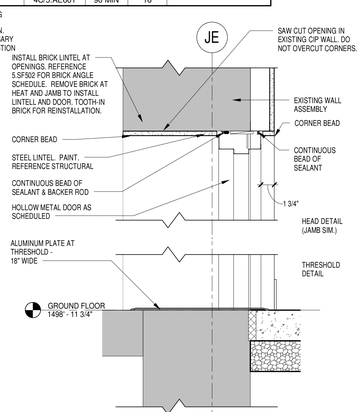
2C DOOR THRESHOLD DETL @ MTL PNL
1 1/2" = 1'-0"



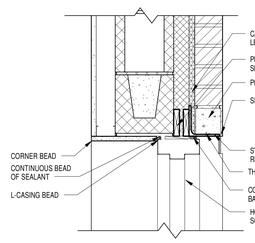
1D INT DOOR HEAD - HM
1 1/2" = 1'-0"



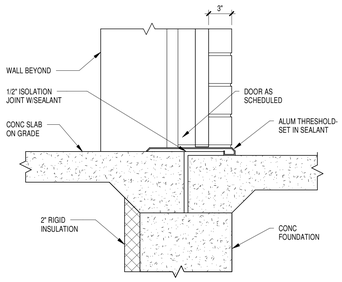
2D INT DOOR JAMB - HM
1 1/2" = 1'-0"



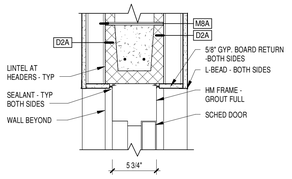
3D DOOR HEAD AND THRESHOLD DETAIL @ EXISTING.
1 1/2" = 1'-0"



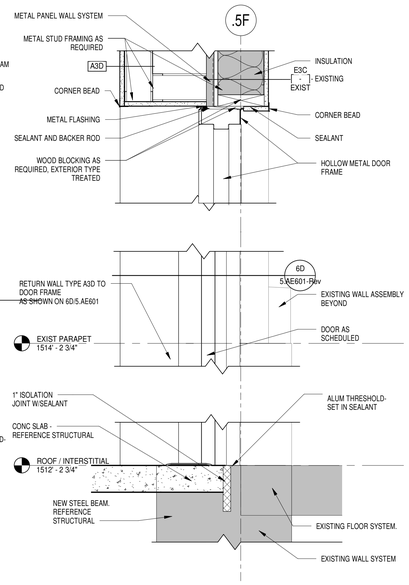
4B DOOR HEAD DETAIL AT BRICK VENEER
1 1/2" = 1'-0"



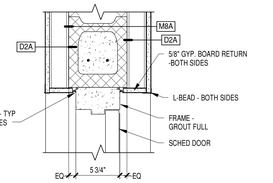
4C EXT DOOR THRESHOLD
1 1/2" = 1'-0"



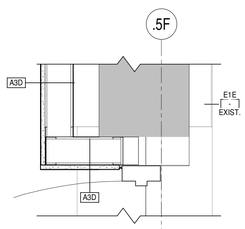
4D INT DOOR HEAD - HM @ CMU
1 1/2" = 1'-0"



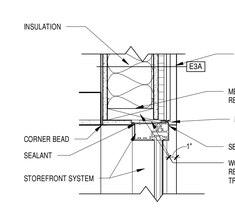
5C HM DOOR @ INTERSTITIAL LEVEL
1 1/2" = 1'-0"



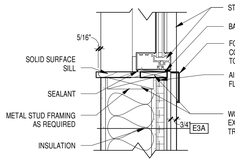
5D INT JAMB DETAIL - HM @ CMU
1 1/2" = 1'-0"



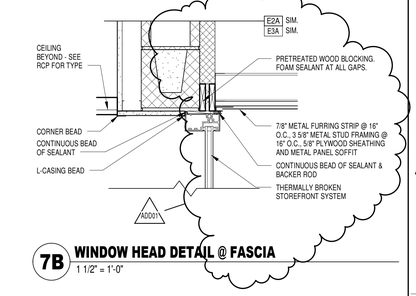
6D JAMB DETAIL @ INTERSTITIAL SPACE
1 1/2" = 1'-0"



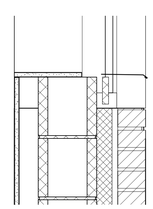
6B WINDOW HEAD DETAIL @ METAL PANEL
1 1/2" = 1'-0"



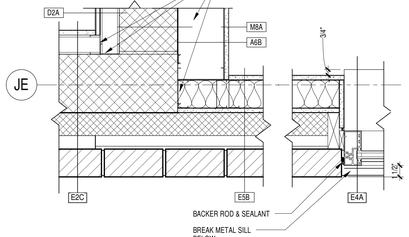
6C WINDOW SILL DETAIL @ METAL PANEL
1 1/2" = 1'-0"



7B WINDOW HEAD DETAIL @ FASCIA
1 1/2" = 1'-0"



7C WINDOW SILL DETAIL @ BRICK VENEER
1 1/2" = 1'-0"



7D JAMB DETAIL @ METAL PANEL
1 1/2" = 1'-0"

7E ELEVATOR SILL
3" = 1'-0"

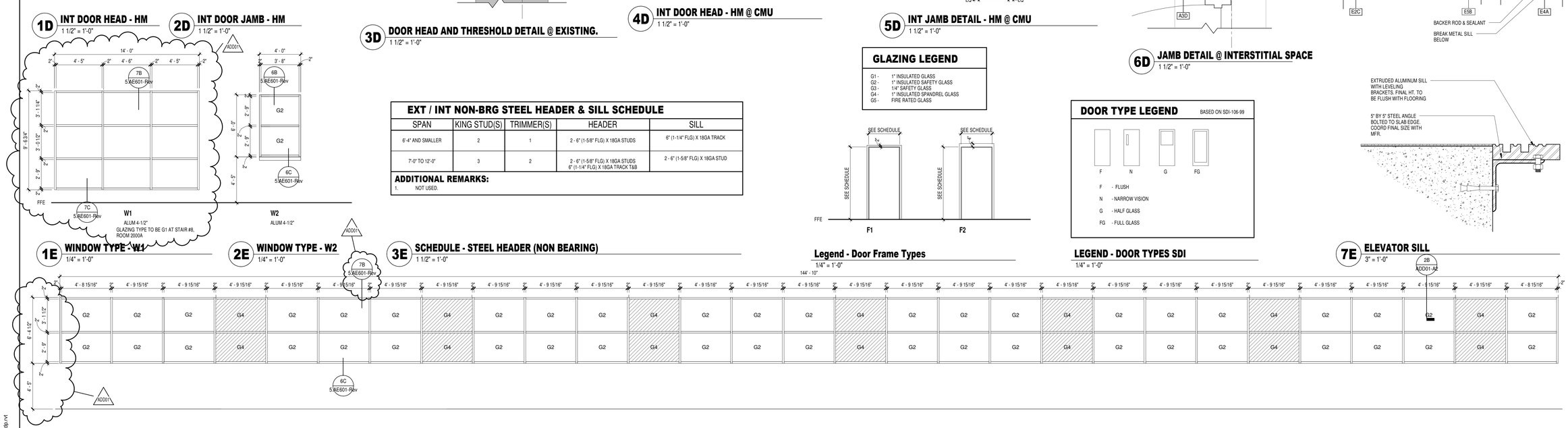
GLAZING LEGEND
G1 - 1" INSULATED GLASS
G2 - 1" INSULATED SAFETY GLASS
G3 - 1/4" SAFETY GLASS
G4 - 1" INSULATED SPANDREL GLASS
G5 - FIRE RATED GLASS

EXT / INT NON-BRG STEEL HEADER & SILL SCHEDULE				
SPAN	KING STUD(S)	TRIMMER(S)	HEADER	SILL
6'-4" AND SMALLER	2	1	2 - 6" (1-5/8" FLG) X 18GA STUDS	6" (1-1/4" FLG) X 18GA TRACK
7'-0" TO 12'-0"	3	2	2 - 6" (1-5/8" FLG) X 18GA STUDS, 6" (1-1/4" FLG) X 18GA TRACK T&B	2 - 6" (1-5/8" FLG) X 18GA STUD
ADDITIONAL REMARKS: 1. NOT USED.				

Legend - Door Frame Types
1/4" = 1'-0"

DOOR TYPE LEGEND	BASED ON SDI-106-99
F - FLUSH	
N - NARROW VISION	
G - HALF GLASS	
FG - FULL GLASS	

LEGEND - DOOR TYPES SDI
1/4" = 1'-0"



1E WINDOW TYPE - W1
1/4" = 1'-0"

2E WINDOW TYPE - W2
1/4" = 1'-0"

3E SCHEDULE - STEEL HEADER (NON BEARING)
1 1/2" = 1'-0"

1F WINDOW TYPE - W3
1/4" = 1'-0"

7E ELEVATOR SILL
3" = 1'-0"

100% CONSTRUCTION DOCUMENTS
- FULLY SPRINKLERED

REVISION	MARK	DATE
ADDENDUM #1	ADD01	06/09/2014

CONSULTANTS:

LICENSED PROFESSIONAL ARCHITECT REG. NO. 3199 STATE OF SOUTH DAKOTA 1-6-2014

ARCHITECTS/ ENGINEERS:

TSP, Inc.
1112 N. West Ave.
Sioux Falls, SD 57104
phone: (605) 336-1160
fax: (605) 336-7926
www.teamtsp.com
TSP# 04121121

TSP To Solve. To Excel. Together.

Drawing Title: DOOR SCHEDULE, DOOR AND WINDOW TYPES

Approved: Project Director

Project Title: PRIMARY CARE ADDITION

Location: VA Medical Center 2501 W. 22nd Street, PO Box 5046 Sioux Falls, South Dakota

Date: 01/06/2014 | Checked: EOO | Drawn: EOO, MHY

Project No.: VA# VA263-P-1038

Building Number: 5

Drawing No.: 5.AE601-Rev

Dwg. 32 of 61

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

VA FORM 08-6231

C:\TSP Revit Local Files\04121121_VA_PRIMARY CARE A13_Johnsonbj.rvt
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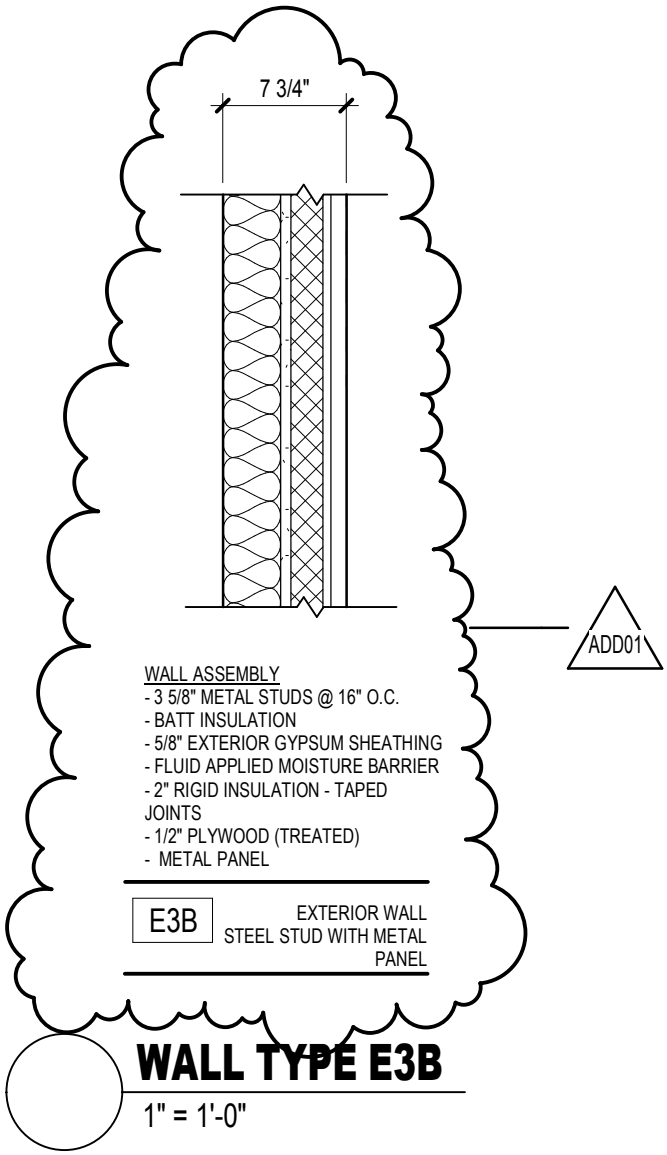

WALL TYPE E3B

1" = 1'-0"

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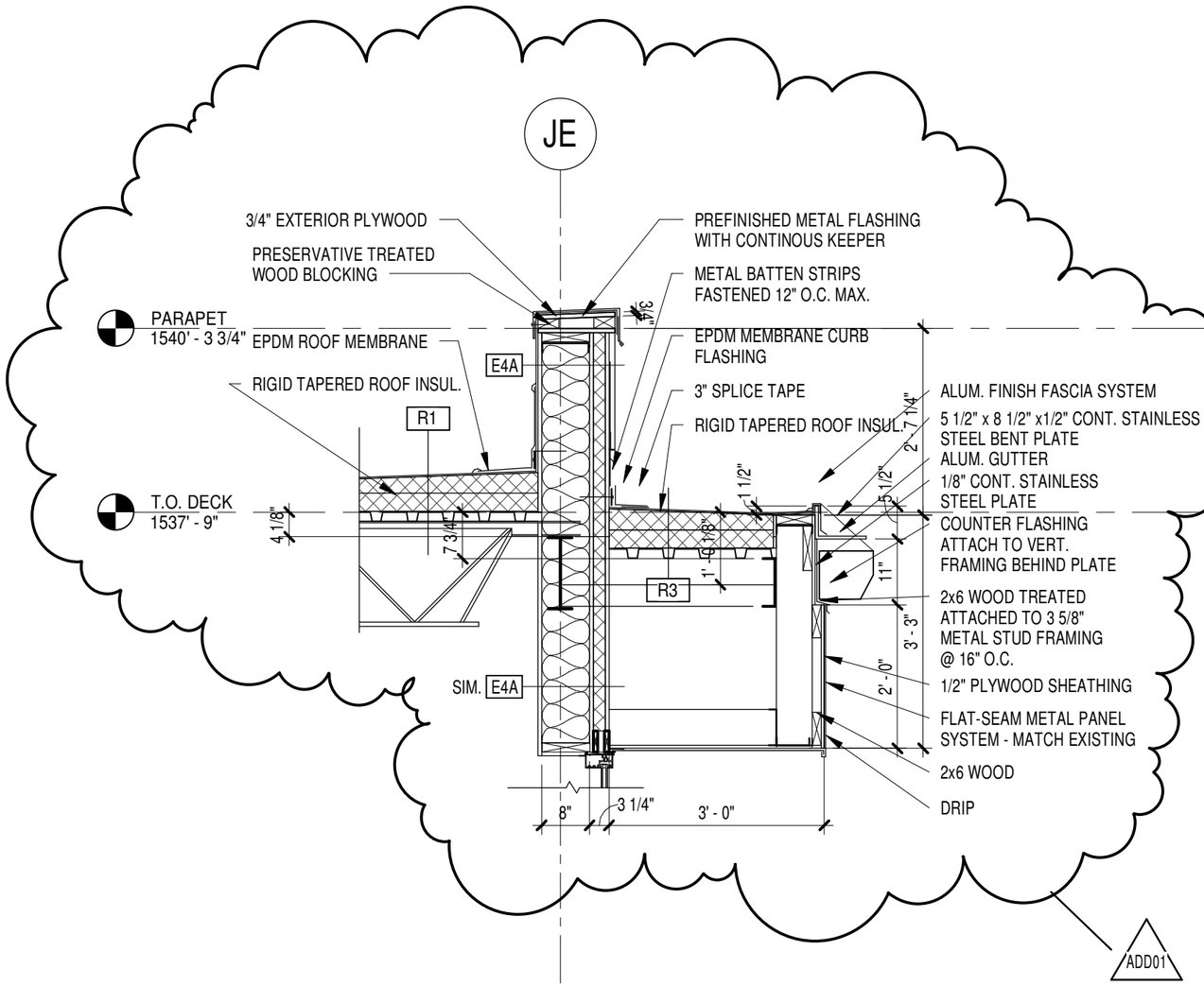
PROJECT TITLE

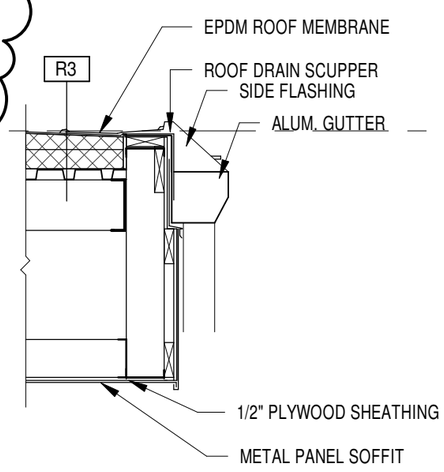
Sioux Falls VA Health Care System
PRIMARY CARE ADDITION

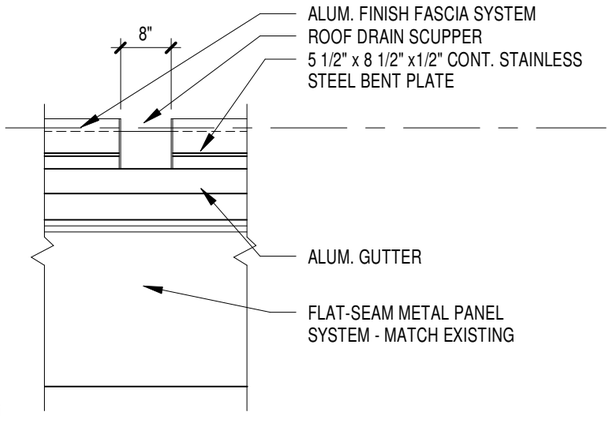
VA Medical Center 2501 W. 22nd Street, PO Box 5046
Sioux Falls, South Dakota

PROJECT #	04121121
DRAWN	EOS
CHECKED	EOS
DATE	06/09/2014

REF SHEET #	ADD#/ASI#/CCD#/PR#	SHEET ID#
5.AE501		ADD01-A1







2B ADD01 - FASCIA WITH GUTTER

1/2" = 1'-0"

TSP
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PROJECT TITLE

Sioux Falls VA Health Care System
PRIMARY CARE ADDITION

VA Medical Center 2501 W. 22nd Street, PO Box 5046
Sioux Falls, South Dakota

PROJECT #	04121121
DRAWN	EOS
CHECKED	EOS
DATE	06/09/2014

REF SHEET #	ADD#/ASI#/CCD#/PR# SHEET ID#
5.AE511	ADD01-A2